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May 26, 1999

Magalie R. Salas
Secretary
Federal Communications Commission
445 12th Street, S.W.
Room TW-B204F
Washington, D.C. 20554

VIA HAND DELIVERY

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Dear Ms. Salas:

Enclosed please find for filing one original and twelve (12) copies of Rhythms NetConnections Inc.'s Comments in FCC Dockets 96-98 and 95-185. Also enclosed is one "Receipt" copy to be date-stamped and returned. If you have any questions or if I can be of further assistance, please do not hesitate to call me at (202) 955-6300.

Sincerely,



Elise P.W. Kiely
Attorney for Rhythms NetConnections Inc.

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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MAY 26 1999

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In the Matter of)

Implementation of the Local Competition)
Provisions in the Telecommunications Act)
of 1996)

CC Docket No. 96-9

Interconnection between Local Exchange)
Carriers and Commercial Mobile Radio)
Service Providers)

CC Docket No. 95. -185

COMMENTS OF
RHYTHMS NETCONNECTIONS INC.

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Dated: May 26, 1999

SUMMARY

This docket is of critical importance in that it will define the precise network elements that must be made available to competitors under Section 251(c)(3) of the Act. In determining which elements ILECs must provide on an unbundled basis, the Commission must establish and implement the “necessary” and “impair” standards in Section 251(d)(2). Under the plain meaning of the Act, the “necessary” standard, which only applies to proprietary elements, is met if without access to a particular ILEC element, the CLEC would be unable to provide its services. An element satisfies the “impair” standard if the same element, is unavailable in the marketplace from a source other than the ILEC on comparable prices, volume and quality.

Based on these standards, the Commission should establish a minimum set of unbundled elements that the ILECs must provide on a national basis. At a minimum, this list should include loops, NIDs, transport and OSS. Moreover, because of technological advances and the development of the marketplace, there are other elements, such as DSLAMs, that for the most part do not satisfy the necessary and impair standards. In order to maintain the integrity of the standards, the Commission must ensure that its list of minimum UNEs is periodically reviewed and either supplemented or reduced as appropriate. Since ILECs should unbundle a minimum set of network elements on a national basis, the Commission should retain exclusive authority over the elimination of an element from the unbundling requirement and invite state commissions to add elements to the list as appropriate in their jurisdictions.

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Service Providers)	

**COMMENTS OF
RHYTHMS NETCONNECTIONS INC.**

Rhythms Netconnections Inc. ("Rhythms"), by its attorneys, respectfully submits these comments in response to the Commission's April 16, 1999 Second Further Notice of Proposed Rulemaking¹ in the above-captioned docket ("Notice").

INTRODUCTION

Rhythms is a comprehensive networking solutions company providing high-speed data communications that combine local access, through the deployment of xDSL technology, with capacity balanced local and wide area data networks. Rhythms began providing service in San Diego on April 1, 1998, and is currently operating in 12 major urban and suburban markets throughout the country. By the end of 1999, Rhythms plans to collocate networking equipment in at least 1,000 central offices and be operational in 33 metropolitan markets.

¹ Second Further Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, CC-Docket No. 96-98, FCC 99-70 (rel. April 16, 1999) ("Notice").

Rhythms was born of the Telecommunications Act of 1996 and its promise to provide telecommunications carriers with access to the essential facilities of the legacy telephone network. The purpose of the Act was to create viable new competitors in the local access marketplace, providing consumers with product and provider choice as a means of lowering prices and gaining access to technologically advanced services.

In the case of Rhythms, the Act produced direct results. Rhythms has begun providing innovative xDSL-based networking services never offered before, at service qualities and prices that could never exist, but for the network access demanded by the Act.

Part of Rhythms' entry strategy includes purchasing access to incumbent local exchange carrier's ("incumbent LEC" or "ILEC") unbundled network elements, which the ILEC must make available under section 251(c)(3) of the 1996 Act.² Without reasonable access to these critical elements, such as loops and interoffice transport, CLECs like Rhythms would be unable to deliver their services to customers.

However, more than three years after passage of the Act, the industry stands today without a conclusive definition of the network elements that must be made available to competitors by incumbent LECs. The Supreme Court recently rejected the Commission's first attempt to define UNEs, stating that "the Commission did not adequately consider the "necessary" and "impair" standards critical to identifying UNEs."³ In this proceeding the Commission will revisit this issue and implement the unbundling provisions of the 1996 Act. This docket is thus of critical importance because it will define exactly which network elements must be made available to competitors, and thus which services they can offer in the increasingly technology-oriented telecommunications marketplace.

² 47 U.S.C. § 251(c)(3).

The Commission can meet the Supreme Court's command that it give "some substance to the 'necessary and impair' requirements"⁴ by adopting two distinct national standards. The "necessary" standard, which only applies to proprietary elements, should be based on the requisite nature of the element. The "impair" standard should be centered on the commercial availability of a particular element in the marketplace, such that if an element is available at comparable prices, volume and quality from third party wholesale providers, an ILEC network element would not be required to be unbundled.

A proper application of these criteria reveals that ILECs should continue, on a national basis, to provide competitors with unbundled access to several network elements, including loops, NIDs, transport facilities and OSS. On the other hand, Digital Subscriber Line Access Multiplexers ("DSLAMs"), which are readily available commercially do not in most circumstances meet the unbundling standards.⁵ The Commission should ensure the integrity of the standards by applying them uniformly across all elements, regardless of the services provided over that element. Likewise, a proper application of these standards may justify the removal of one or more elements that were on the original UNE list, or as technology develops, the addition of new UNEs. As a general matter, the Commission should periodically review the competitive and practical realities of the marketplace to ensure that the "necessary" and "impair" standards are being consistently and appropriately applied.

³ *AT&T Corp. et al. v. Iowa Util's Bd. et al.*, 119 S.Ct. 721, 734 (1999).

⁴ *Iowa Util's Bd.*, 119 S. Ct. 733-36 (1999)

⁵ See Section II E.

DISCUSSION

Under the 1996 Act, ILECs have a "duty to provide . . . nondiscriminatory access to network elements on an unbundled basis at any technically feasible point on rates, terms, and conditions that are just, reasonable and nondiscriminatory . . ."⁶ As part of its responsibility to implement this requirement, the Commission must determine which elements incumbent carriers are required to provide on an unbundled basis. In identifying these network elements, Section 251(d)(2) of the Act directs the Commission to "consider at a minimum, whether—(A) access to such network elements as are proprietary in nature is *necessary*; and (B) the failure to provide access to such network elements would *impair* the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer."⁷ Defining the "necessary" and "impair" standards is a crucial prerequisite to the determination of which elements the ILECs will have to offer on an unbundled basis.

The Commission first interpreted the necessary and impair standards in its *Local Competition Order*, which determined that an element was "necessary" if it was a "prerequisite for competition," and "impair" "meant to become worse or diminish in value."⁸ Under this approach, at a minimum, the incumbent LECs were required to provide access to seven network elements: the local loop, network interface device ("NID"), operations support systems ("OSS") functions, switching capability, interoffice transmission facilities, signaling networks and call-related databases, and operator services and directory assistance.⁹

⁶ 47 U.S.C. § 251(c)(3).

⁷ 47 U.S.C. 251(d)(2) (emphasis added).

⁸ *Local Competition Order* ¶285.

⁹ 47 C.F.R §51.319.

In reviewing the *Local Competition Order*, the Supreme Court affirmed the Commission's jurisdiction and upheld the vast majority of its rules. However, the Court concluded that the Commission erred in its interpretation of the Act's unbundling requirements.¹⁰ Specifically, the Court held that the Commission's interpretations of "necessary" and "impair" were too narrow in that they did not account for the availability of elements outside of the incumbents' network.¹¹ In addition the Court held that the Commission's "impair" standard was too low in that it applied to "any" difference in cost or quality between an ILEC element and an alternative element.¹² Accordingly, the Supreme Court directed the Commission to revisit its application of the "necessary" and "impair" standards.

I. THE "NECESSARY" AND "IMPAIR" STANDARDS ARE CRUCIAL PREDICATES TO IDENTIFYING WHICH NETWORK ELEMENTS THE INCUMBENTS MUST PROVIDE ON AN UNBUNDLED BASIS

The definition, and application, of Section 251(d)(2)'s "necessary" and "impair" standards is a crucial predicate step to identifying which network elements the Commission should require ILECs to provide on an unbundled basis. The Notice correctly concludes that under the plain language of Section 251(d)(2)(A),¹³ the "necessary" standard applies only to proprietary elements.¹⁴ Likewise, but contrary to the Commission's assumption,¹⁵

¹⁰ *Iowa Util's. Bd.*, 119 S.Ct. 733-36 (1999).

¹¹ The Commission had argued that it did not need to consider elements outside of the ILECs' network because no rational competitor would seek the ILECs' facilities if those facilities could be obtained from a non-ILEC source. The Supreme Court rejected this Commission argument because it would "allow[] entrants rather than the Commission, to determine whether access to proprietary elements is necessary, and whether the failure to obtain access to nonproprietary elements would impair ability to provide services." *Iowa Util's Bd.*, 119 S.Ct. 733-736, (1999).

¹² *Id.*

¹³ 47 U.S.C. § 251(d)(2)(A). According to Section 251(d)(2)(A), the Commission is to consider whether "access to such network elements as are proprietary in nature is necessary."

¹⁴ Notice ¶19.

¹⁵ Notice ¶19.

the "impair" standard under Section 251(d)(2)(B)¹⁶ also applies only to proprietary elements.¹⁷ Even if the impair standard "applies to 'nonproprietary' network elements,"¹⁸ however, the definition "impair" remains the same. Thus, regardless of whether the "impair" standard is only implemented for proprietary elements, or for all network elements, the definition of this standard will be identical it is only the application of the standard that is affected.

Before the Commission can apply the "necessary" and "impair" standards it must interpret the terms "proprietary," "necessary," and "impair" as used in Section 251(d)(2). The paramount factor in determining whether a particular element is proprietary is whether CLECs would have access to information, software, or technology that is protected by patents, copyrights, or trade secrecy laws. If a new entrant can access an element without obtaining access to related proprietary information, no proprietary interest is impinged and the Commission should not limit CLECs' access. Furthermore, under this definition Telecommunications Industry Association (ITA), Bellcore (now Telecordia) and other non-carrier specific standards cannot be considered proprietary, because as industry-wide standards these are not specific to the ILECs. Finally, it is important that the Commission's definition recognize that Section 251(d)(2) is intended to limit the use of the test to only certain special elements.

If an element satisfies the definition of proprietary, the Commission must determine whether that element is "necessary" to the provision of telecommunications services. Since

¹⁶ 47 U.S.C. § 251(d)(2)(B). The Commission is required to "consider" whether the "failure to provide access to such network elements would impair the ability of the telecommunications carrier seeking access to provide the services that it seeks to offer."

the language of Section 251(d)(2)(A) provides little guidance on how this term should be interpreted, the Commission should apply the plain meaning of the word "necessary." The Commission's *Local Competition Order* properly adopted this approach by defining a necessary network element as one that is "a prerequisite for competition."¹⁹ In other words, an ILEC element is necessary if, without it, a carrier would be unable to provide the ILECs service. Such a relatively high standard is appropriate since the elements being evaluated under this standard impinge upon the ILEC's intellectual property.

A different definition should be applied to the Section 251(d)(2)(B) "impair" standard. Under the Commission's original interpretation, the inability to access a particular element would impair a new entrant's service offering "if the quality of the service that the entrant can offer, absent access to the requested element, declines and/or the cost of providing the service rises."²⁰ On review of this issue, the Supreme Court held that, the Commission cannot assume that *any* increase in cost or decrease in quality "impairs" a competitors' ability to provide services.²¹ Addressing this definition requires the Commission to eliminate the presumption that an effect on price or quality, whether or not material to the CLEC's ability to offer the service, automatically qualifies as a statutory impairment. The Commission must establish an impair standard that fits between those instances when denial of access to an ILEC's element would cause more than "any" increase in cost, but need not reach the level of completely denying the CLEC the ability to provide the service at all. Under this approach, the Commission should give meaning to the impair

¹⁷ The reference to "such network elements" in Section 251(d)(2)(B) is a reference to "such network elements as are proprietary in nature" used Section 251(d)(2)(A). Under the plain language of the Act, both the "necessary" and "impair" standards apply only to the proprietary elements.

¹⁸ Notice ¶19.

¹⁹ *Local Competition Order* ¶ 282.

standard by applying a definition that provides for "more than a *de minimis*" change in cost or quality.

To this end, the Commission should define impair to mean to diminish a competitor's ability to provide the telecommunications service that it desires to an extent that is more than *de minimis*. Lack of access to an element will diminish a CLEC's ability to provide service if a comparable element is not available from a wholesale market or cannot be self-provisioned under comparable terms and conditions. In order to be comparable, the alternative element must be substantially similar to the ILEC element in terms of quality, cost, scope of availability and timely delivery. To be comparably available the element must be available wherever it is needed, at the quantities it is needed, at a comparable price (a competitive price approaching incremental cost) in a commercially reasonable manner. That is, is the element available under truly competitive market conditions and terms. Even if the element is technically available, but would require the CLEC to incur more costs, await a longer provisioning interval to acquire the element, or endure a degraded quality of service—all to an extent that is more than *de minimis*—the denying the CLEC access to the ILEC's network element would impair the CLEC's ability to provide the service that it intends to provide.²² In these situations, the Commission should require the incumbent to provide the CLEC with access to the element on an unbundled basis.

In order to determine whether a truly competitive and viable wholesale market exists for a particular element, the Commission should affirm its earlier decision that "explicit

²⁰ *Local Competition Order* ¶ 285.

²¹ *Iowa Utils. Bd.*, 119 S. Ct 733-36

²² It is important to note that application of this standard requires the Commission to consider the service that the CLEC wants to offer and not the service that the ILEC offers. Competitors may be able, and intend, to provide a more sophisticated service than the ILEC. The issue of whether impairment exists should

(Footnote Continued)

national standards" for unbundling of network elements are essential to ensuring that both the Commission and the states could affect the pro-competitive de-regulatory goals of the 1996 Act."²³ Noting that the Supreme Court did not challenge the Commission's decision to establish national standards, the Notice tentatively concludes that the competitive policy rationales for national standards still necessitate that the Commission "identify a minimum set of network elements that must be unbundled on a nationwide basis."²⁴ Applying a national standard will provide certainty and consistency in the ability of CLECs to obtain access to ILEC network elements. Moreover, by making a uniform list of elements available to CLECs across the country, the Commission will avoid repetitive, "mini-Section 271-type proceedings," where ILECs and CLECs litigate over whether the ILEC has provided access to a sufficient number of elements in the context of a Section 251 analysis. Therefore, the UNE rates should establish a rebuttable presumption that ILECs must provide unbundled access to the elements the Commission identifies on a national basis. In order to rebut this presumption, the ILEC must demonstrate, by a clear and convincing evidence that an element is commercially available in comparable terms (price, volume, etc.) from third parties, and thus no longer meets the impair standard in a particular region of the country. Of course, unless and until the Commission rules that it may stop, the ILEC must be required to provide the element.

be contingent upon whether the CLEC can provide its service without the element regardless of the service that the ILEC provides by using that element.

²³ *Local Competition Order* ¶¶45, 53-62. In reaching this conclusion, the Commission determined that national standards would equalize the bargaining power between incumbents and CLECs, would limit the cost of multiple network configurations and marketing strategies and would reduce the administrative and litigation costs due to repetitive adjudication on which elements to unbundle in each jurisdiction. *Local Competition Order* ¶¶55-56.

²⁴ Notice ¶14.

Once the Commission establishes the definitions of proprietary, necessary and impair, it must then apply these terms to identify the elements that it will require incumbent LECs to provision on an unbundled basis under Section 251(c)(3). First, the Commission must determine if an element is proprietary. If the answer is yes, then the Commission must examine whether the element is necessary. If the proprietary element is necessary, then it is a UNE and the ILEC must make it available on an unbundled basis.²⁵ An element that is not necessary to the CLEC's provision of telecommunications services need not be included on the Commission's minimum list of UNEs, and the ILECs should have no obligation to make it available on an unbundled basis.

If the element does not meet the definition of a proprietary element, then the Commission need not address the "necessary" analysis and may make its unbundling determination on whether the element satisfies the "impair" standard. For non-proprietary elements, if the denial of access would diminish the CLEC's ability to provision the service that it wants to offer to more than a *de minimis* extent, as defined above, then the element must be included as one that ILECs are required to make available on an unbundled basis. On the other hand, if there is a viable competitive wholesale market for the element, or a CLEC could self-provision the element at cost and other conditions comparable to those found in a competitive market, then the unavailability of the ILEC's UNE will not impair the CLEC and the ILEC need not provide the element under Section 251(c)(3).

After conducting these analyses, the Commission should establish a minimum set of UNEs that the ILECs must provide on a national basis. Because the Commission is

²⁵ The Commission need not address whether the impair standard is met because the necessary standard is a higher standard in that it requires an element to be a "prerequisite" to the provision of service.

(Footnote Continued)

responsible for setting this minimum list on a national level, the Commission should have the exclusive right to eliminate elements from this list. While the states should have the authority to require ILECs operating in their jurisdictions to unbundle additional elements, they should not be able to reduce the ILECs' unbundling obligations on a national level.

Finally, it is not unreasonable to assume that when applying these standards, the Commission may eliminate from the ILEC's unbundling obligations some of the elements that it originally identified as UNEs in the *Local Competition Order*. Equally, the Commission may find that elements not originally on the Commission's list must be unbundled. Moreover, the Commission may find that some elements should only be unbundled under particular competitive circumstances – for instance, as described below, where a competitor is unable to gain access to a particular loop, the DSLAM serving that loop may have to be unbundled.

In order to give full effect to the Supreme Court's ruling in *Iowa Utilities*, the Commission must also order ILECs to combine the elements that they must unbundle.²⁶ While this obligation is already the law of the land, the ILECs have refused to combine UNEs until the Commission explicitly issues a ruling. Therefore, the Commission must implement this rule in order to gain ILEC compliance.

II. THE COMMISSION SHOULD DETERMINE THAT LOOPS, NIDS, TRANSPORT FACILITIES AND OSS, AS MOST CURRENTLY DEFINED, ARE UNEs UNDER THE "NECESSARY" AND "IMPAIR" STANDARDS

There are several elements from the Commission's original list of seven UNEs that should continue to be provided on an unbundled basis under the definitions discussed in

This requires a greater showing than whether an element will materially diminish the ability to provide a service.

Section I. Clearly, loops and network interface devices ("NIDs") satisfy the "necessary" and "impair" standards because without these UNEs CLECs would be foreclosed from end users in virtually every instance. In addition, interoffice transport facilities and operations support systems ("OSS") are required to provide competitive services, because there are no *comparable* alternatives to these elements currently available on the wholesale market under competitive conditions, as defined above.

There are various other elements however, that while important to the provision of competitive telecommunications services, including advanced services, probably do not satisfy the necessary and impair standard. For example, because they can be self-supplied digital subscriber line access multiplexers ("DSLAMs") need not, with a few limited exceptions, be provided on an unbundled basis.²⁷ Likewise, switching may now be sufficiently available on wholesale basis, for many if not most applications, that it may not be necessary to require incumbent LECs to provide this functionality on an unbundled basis.

A. The Commission Should Require ILECs to Provide CLECs with Access to Unbundled Loops, Including Clean Copper Loops

It cannot be legitimately disputed that for the unbundling requirements of the Act to have *any* impact at all, the transmission path between an ILEC's central office and individual customer premises—the local loop—must be included in the Commission's final list of unbundled network elements.²⁸ In its *Local Competition Order*, the Commission required the unbundling of loops, which were defined as "a transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and an end user

²⁶ *Iowa Util. Brd.* 119 S.Ct. 737-8. The Act "does not say, or even remotely imply, that elements must be provided only in this [uncombined] fashion and never in combined form."

²⁷ See Notice ¶ 35.

²⁸ Notice ¶32.

customer premises."²⁹ The Commission should affirm its prior conclusion that loop elements are, in general, not proprietary.³⁰ Because a loop is not proprietary the Commission need not inquire whether access to loops is necessary. Further, failure to obtain a loop would clearly impair CLECs' ability to provide their services.

As discussed below, the Commission must clarify that clean *copper* loops be made available to providers of xDSL and other advanced services. Such "xDSL compatible" loops are only available from the ILECs, and their absence (or an ILEC's refusal to eliminate performance-inhibiting electronics) substantially impedes—and in many cases entirely prevents—the provision of xDSL-based advanced services.

1. The Commission Should Define the Loop to Include xDSL Compatible Loops

Since the Commission's release of the *Local Competition Order* in August of 1996, xDSL-based data providers have discovered that, in order to successfully provide local services, they require more than just the ability to order "a transmission facility" between the ILEC central office and their customer. Specifically, the building block of xDSL-based services is access to a *clean* copper loop.

A clean copper loop is simply a contiguous metallic facility unfettered by intervening equipment, including load coils, repeaters or a excessive number of bridged taps. Virtually all "flavors" of xDSL technology rely on the transmission of digital signals along such a contiguous metallic facility.³¹ Any break in the conductivity of the copper represents a potential barrier to the xDSL signal. Similarly, because of the technological

²⁹ 47 CFR §51.319(a)

³⁰ *Local Competition Order* ¶388.

dependence on copper, xDSL signals generally do not flow through fiber-based digital loop carrier ("DLC") facilities. Since xDSL carriers must have access to these clean copper loops to provide advanced services, it is critical that incumbent LECs make these loops available on an unbundled basis. Because copper loops are not available from any other source, without such loops, DSL providers cannot offer their services.

Any UNE definition of "loop" must refer to the particular facility that is most efficient to the requesting CLEC, including an xDSL-based carrier. That is, the Commission should refine its loop definition as follows:

the features and functionalities of the transmission facility between a distribution frame (or its equivalent) in an incumbent LEC central office and an end user customer, including providing access to, and if necessary conditioning existing plant to provide, continuous metallic wire links unfettered by load coils, repeaters and excessive bridged taps.

Consistent with the Commission's rules, the CLEC should be entitled to "exclusive use" of the features and functionalities, with the discretion to select which of those (or all) it deems appropriate to deploy for its chosen services. The analysis for determining whether a loop as defined herein meets the "necessary" and "impair" standards is straight forward. Simply put, there currently exists no substitute, at any price, or any interval, for a clean copper loop. DSL services can *only* be provided over copper, and no other service, including cable modems, currently matches the features and capabilities of xDSL. The inability of xDSL-based advanced service providers to gain access to clean copper loops, where they exist, would more than impair their ability compete, it would terminate it. The

³¹ The most common exception to this rule is IDSL, or IDSN digital subscriber line technology that can be deployed over certain kinds of loop carrier, but which has a much lower maximum data transmission speed.

only other media for providing advanced services across the last mile are either still too far in the future (wireless) or controlled by other incumbent monopolists (cable/satellite).

2. In Identifying the Loop, the Commission Should Clarify the Characteristics of the Loop to Facilitate the Provisioning of Advanced Services

In order to make any loop definition effective, at least three additional steps are needed. First, the Commission must affirmatively act to limit the loop conditioning fees currently being applied by incumbents, or find that the incumbent LECS should recover the cost for standard line conditioning—a service the incumbent regularly performs for itself, generally at no cost — as part of the basic forward-looking cost of the loop. Currently there is no control over the conditioning fees incumbents are charging. On numerous occasions, Rhythms has experienced unexplainably high conditioning charges.

For instance, in the Chicago area, Ameritech has charged Rhythms special construction charges of \$102,000 for one loop, \$262,000 for another and \$349,2000 for a third. In a "forward looking" network all loops are data capable, so the incremental cost of the loop should include all deloading fees. Moreover, ILECs routinely remove unnecessary electronic from their loops without charging their retail customers for the process. There is no reason why CLECs should be assessed such outrageous costs being applied by the ILECs if the ILECs do not treat themselves the same way.

Second, the Commission must reinforce and make more explicit its requirement that incumbents provide CLECs with access to a xDSL-capable loop when an end user is served by DLC.³² At a minimum, ILECs must be required to perform for CLECs the same basic "line and station" transfer of a loop from DLC to copper that it routinely performs for itself and other customers. Moreover, this transfer or rearrangement must be required if *any*

alternative copper plant exists, not just if the ILEC deems that there is "available" copper. Where there is only DLC, and literally no copper exists, the ILEC must be required to either allow collocation in or near the DLC remote terminal ("RT") or provide CLECs with unbundled access to any ILEC DSLAM equipment located in or near the RT.³³

Third, is critical to the development of effective competition that the Commission make perfectly clear that incumbent LECs have a duty to provide access to network elements as they exist, or with standard conditioning, regardless of the service proposed to be offered by the CLEC over those elements. Too often incumbents attempt to block competitive access to UNEs by asserting the unavailability or technological insufficiency of an element. For example, incumbents sometimes claim that there are no elements available that are capable of provisioning the intended service. Furthermore, Rhythms has been told that a facility does not exist, even though the facility *is* available to, and used by, the ILEC's retail service. Often, CLECs might be able to provide a technical means of utilizing the facility, but are denied access to the loop because the incumbent refuses to recognize alternative technological uses for a particular facility. For this reason, the Commission's rules must prohibit an ILEC from denying CLECs access to an unbundled element based upon the service the CLEC seeks to provide over that element.

3. The Commission Should Include Line Sharing As Part of the Unbundled Loop Definition

As the Commission has already tentatively concluded in its *Advanced Services Order*, there is "nothing in the existing record to persuade us that line sharing is not

³² *Local Competition Order* ¶ 383.

³³ Ex Parte Letter of Rhythms NetConnections Inc. CC Docket No. 98-11, 98-26, 98-32, 98-91, Petitions for Section 706 Relief (July 6, 1998).

technically feasible."³⁴ Without a line sharing requirement, "competitive LECs will be hampered in their ability to compete in providing advanced services to end users."³⁵

Line sharing refers to the ability to provide both xDSL-based data services and traditional POTS services over a single line. Incumbents already routinely enjoy this functionality for themselves. Shared use is often the economically efficient solution, allowing lower service rates. Moreover, customers often prefer to order both services over a common line and should have the right to choose their provider for DSL separately from their provider for voice, without being forced by the ILECs to obtain an additional—and unnecessary—loop.

Section 251(c)(3) of the Act requires incumbent LECs to provide requesting carriers with "*nondiscriminatory* access to network elements on an unbundled basis at any technically feasible point."³⁶ The Act's plain language thus demands that where the ILECs provide themselves with access to a feature or functionality of the network, such as line sharing, they must make it available to other carriers.

Clearly, shared use of a copper wire is a valuable feature of the loop. Any regulation that would allow incumbents to force CLEC's customers to purchase an entirely new loop, where the data service can be provided on the existing loop, is anticompetitive. Such a requirement would force competitive xDSL providers to either purchase an additional loop for the DSL service or purchase the existing loop and provide, or contract to provide, not only data service, but also voice service—a service that they have not elected to provide. As a practical matter, this would force xDSL providers to convince customers to switch from

³⁴ *Advanced Services Order* ¶103.

³⁵ *Id.* ¶99.

³⁶ 47 U.S.C. § 251(c)(3)(emphasis added).

their existing voice provider (typically the ILEC) with whom they may be perfectly happy. Such a rule would represent a significant barrier to entry in the advanced services market. The only other alternative—the CLEC purchasing a new loop for the xDSL services—results in a significant anticompetitive price disadvantage for competitive xDSL providers who must recover the cost of the second loop through their xDSL retail rates even though their competitors, the ILECs, do not have to recover loop costs in their xDSL service rates.

B. Network Interconnection Devices Should be Provided on an Unbundled Basis

In addition to loops, the Commission's *Local Competition Order* required ILECs to provide unbundled access to NIDs.³⁷ A NID is a device that cross connects the loop to the inside wiring at the end user's premises. As such, CLECs must have access to the NID in order to connect the loop to the end user's inside wiring and ultimately customer premises equipment. There is no evidence of any proprietary concerns under Section 251(d)(2)(A) with unbundled access to the NID. Further, even under the impair standard, NIDs must continue to be unbundled. If CLECs are denied access to the NID on an unbundled basis they cannot turn to a wholesale market or self-supply the NID. Therefore, the unavailability of the NID would materially diminish their ability to provide the services that they seek to offer. Therefore, the Commission should retain the NID as a UNE.

C. The Provision of Interoffice Transmission Facilities is Necessary and the Failure to Provide Such Access Will Impair the Provision of Competitive Services

³⁷ *Local Competition Order* ¶¶ 366, 392.

In the *Local Competition Order*, the Commission found that incumbent LECs must provide interoffice transmission facilities on an unbundled basis to requesting carriers.³⁸ The Commission found that there are no proprietary concerns regarding the transmission of interoffice facilities.³⁹ Furthermore, it is clear that to the extent CLECs are denied access to unbundled transport, their ability to offer their services is impaired. While alternative suppliers of interoffice facilities exist in certain areas, the Commission determined that competition would benefit from the existence of greater, not fewer, suppliers.⁴⁰

It has been Rhythms' experience in the nearly two dozen major markets that it has sought interoffice transport, that conditions have not significantly altered since the Commission's drafting of the *Local Competition Order*. Specifically, while alternative providers of high speed transport do exist in some parts of the country, there are currently several reasons why a new competitor cannot rely on alternative suppliers alone for its transport needs, and therefore must have access to ILEC interoffice transmission facilities on an unbundled basis.⁴¹

First, alternative providers have currently built-out their over-lay transport facilities only in limited footprints and only in the nation's most densely populated urban areas. Even in the most promising of cities for interoffice transport competition, alternative providers

³⁸ Specifically, the Commission stated that:

incumbent LECs must provide unbundled access to dedicated transmission facilities between LEC central offices or between such offices and those of competing carriers. This includes, at a minimum, interoffice facilities between end offices and serving wire centers (SWCs), SWCs and IXC POPs, tandem switches and SWCs, end offices or tandems of the incumbent LEC, and the wire centers of incumbent LECs and requesting carriers. The incumbent LEC must also provide, to the extent discussed below, all technically feasible transmission capabilities, such as DS1, DS3, and Optical Carrier levels (*e.g.* OC-3/12/48/96) that the competing provide could use to provide telecommunications services. *Local Competition Order* ¶440.

³⁹ *Id.* ¶446.

⁴⁰ *Id.* ¶441.

⁴¹ See Affidavit of Frank Uhl appended hereto as Attachment 1.

rarely offer alternative facilities in all, or nearly all, of the central offices in which Rhythms plans to collocate. Generally competitive access providers ("CAPs") are forced to resell facilities acquired from the incumbent in order to supplement their own infrastructure. In the less dense cities, and outside the few downtown central offices, the likely availability of alternative transport is even more dismal.

Second, even where an alternative CAP does have facilities available, current demand often results in insufficient capacity and lengthy delays before facilities become available. Under the definition of "impair" described above, where there exist significant delays in accessing the only available substitute for an ILEC's network element, a failure to make that element available to competitors as a UNE "impairs" the carrier's ability to provide local service.

The Commission should resist the temptation to review the status of transport competition on a geographic basis. As stated above, even in the most competitive metropolitan areas, there exist numerous central offices, in the DSL providers footprints, where the only high speed transport available is that of the ILEC. In addition, attempting to identify interoffice transport competition on a city-by-city basis is a moving target.

D. The Commission Should Require OSS to be Provisioned on an Unbundled Basis

In its *Local Competition Order*, the Commission described OSS as "databases' or facilit[ies] . . . used in the provision of a telecommunications service, and the functions performed by such systems," and the "features, functions, capabilities that are provided by the means of such facilities[ies]"⁴² The Commission also described OSS as including "databases' and 'information sufficient for billing and collection or used in the transmission,

routing, *or other provision* of a telecommunications service."⁴³ The Commission also recognized that this access should be in electronic format, given that the ILEC is able to provide this information to themselves in electronic format."⁴⁴ Typically, OSS includes the following functions: pre-ordering, ordering, provisioning, maintenance and repair, and billing.

OSS systems are not proprietary.⁴⁵ Accordingly, they should be made available as UNEs. Moreover, under virtually any "necessary" and "impair" standards, there can be no doubt that incumbents must unbundle and provide electronic access to their OSS and related databases, because without access to OSS, virtually all other UNEs become meaningless, accounting for the significant focus on OSS issues in Section 271 proceedings.

Both the importance of OSS to competitors' ability to offer services and the fact that *only* the ILEC can be the source of the OSS functionality obligates the ILECs to provide OSS under either the necessary or impair standards. As discussed below, there is no doubt that competitors' services would be materially diminished by a lack of access to an ILEC's OSS systems, and accordingly, even if there are proprietary aspects of OSS, under the necessary standard, these aspects must be made available. Furthermore, the type of information and processes available through OSS are not available anywhere else on the wholesale market, and accordingly, the ILEC must be required to unbundle OSS under the "impair" standard proposed above.

The importance of OSS to competitors is highlighted in both the Act and in practical experience. Section 271 stipulates that in order to gain access to the interLATA

⁴² *Local Competition Order* ¶517.

⁴³ *Local Competition Order* ¶ 516 (citing Section 251(c)(3) of the 1996 Act).

⁴⁴ *Local Competition Order* ¶519.

marketplace, ILECs must provide nondiscriminatory access to their databases."⁴⁶ The clear presumption in this requirement is that an ILEC's network is not truly open to competition, if new entrants do not have the ability to access those systems. The Commission has consistently applied this position throughout its evaluation of the ILECs' 271 applications. In practice, any reliance by a CLEC on access to ILEC UNEs is a reliance on the ILEC's OSS capabilities. Without access to automated OSS interfaces capable of complete electronic flow-through with minimal or no manual intervention, CLECs are flatly unable to scale their operations.

With three separate ILECs, Rhythms has experienced the dismal process of attempting to pre-order, order and provision unbundled DSL capable loops deploying primitive operation support systems. In all these cases, manual intervention has been routinely required, and Rhythms has had to dedicate significant human resources to identify and escalate basic problems that a system-to-system OSS would eliminate. For advanced service providers, OSS access is simply fundamental to their ability to provide sophisticated services effectively or in any scaleable manner.

Perhaps the most crucial aspect of OSS access for DSL providers is the pre-ordering function, and in particular, access to the databases on physical makeup of loops that exist in the ILEC legacy systems. When a customer contacts Rhythms regarding its services, Rhythms seeks to participate in a pre-ordering process to enable Rhythms to determine if the loop that serves that customer is capable of carrying DSL service, and if so, what type of DSL service. Rhythms bases this assessment on the physical makeup of the loop. Specifically, Rhythms would look at the length and wire gauge of the loop, and whether or

⁴⁵ Cite.

not the loop contains load coils, bridge taps, repeaters, Digital Added Main Lines ("DAMLs") or Digital Loop Carrier ("DLC") systems.

This type of loop characteristic information is currently available in the ILECs' legacy systems, such as LFACs, and the ILECs routinely access this type of information to deploy their own DSL services. Outside of these and other ILEC databases, there exists no alternative loop information database from which to draw this information, as only the ILECs have had access to the detailed loop design and maintenance records. This pre-ordering process, however, rarely occurs. Currently, ILECs will not allow Rhythms and other competitors access to any raw loop data at a useful point in the pre-ordering process. At best, the ILECs' response to competitor pre-ordering inquiries regarding a loop is to provide competitors with a "yes" or "no" answer as to whether or not the *ILEC* believes that loop is able to support ADSL service, or whether or not the loop is "conditioned" to provide ADSL service. Often, the ILEC simply makes the loop qualification decision for the CLEC by simply stating that "no facilities are available" without any further intelligence. In the rare instance that an ILEC does provide design record data, it generally does so far too late to be useful.

There are several further examples as to how data on loop characteristics can impact the service offering decisions of Rhythms and other competitive advanced services providers. For example, because xDSL services are distance sensitive, information on loop length is critical to determining whether services can be provided and what technology would be most appropriate. Rhythms does not get accurate loop length data until it can run its own tests (after hand-off by the ILEC). This results in last minute order changes that can

⁴⁶ 47 U.S.C. Section §271(c)(2)

delay provisioning of the requested services. Similarly, where a potential customer's loop is provisioned over DLC, steps must be taken to arrange either to transfer the loop to alternative copper facilities that could also service that customer or to provide an IDSL-based solution. Either step can take time (allowing delivery of the customers service on the promised date), and access to pre-order information would expedite the process. The most obvious example of the usefulness of pre-ordering loop data where a potential customer's loop contains excessive bridged taps or load coils. Because most ILECs do not provide pre-ordering data up front, Rhythms often does not find out about the existence of these electronics until late in the ordering process, causing delays and unknown "special construction" costs when Rhythms asks to have them removed.

Without access to this existing information, carriers like Rhythms are forced to "guess" whether or not a customer's loop can support a particular type of xDSL service. This "guessing" process imposes additional cost burdens as well as increasing the time that it takes Rhythms to service its customers, thus increasing the risk that Rhythms will lose those customers.

E. The Commission Should Apply the Same "Necessary" and "Impair" Standards to xDSL Equipment

The Commission requests comment on whether network elements specifically used in the provision of advanced services, such as digital subscriber line access multiplexers ("DSLAMs"), should be unbundled and whether there is any basis for treating these elements differently than the elements used in the provisioning of traditional switched voice services.⁴⁷ Addressing the second question first, the Commission should apply the same statutorily—mandated "necessary" and "impair" standards to all network elements,

regardless of whether those elements are used for advanced or traditional voice services. The proprietary nature and wholesale availability of an element should drive the determination of whether to unbundle an element, not the service that the element is used to provide. Moreover, some of the elements used to provide voice services are also used to provide advanced services, such as loops and transport. Were the Commission to apply a different standard based on service rather than the element, the same network element could be subject to conflicting unbundling requirements. Such a result would invite confusion and litigation of when an element should be unbundled and ultimately degrade the integrity of the "necessary" and "impair" standards.

Since the same unbundling standard should apply to all network elements, the Commission should first determine whether the elements in question are proprietary, and second apply the "necessary" and "impair" standards described above in determining whether elements used in the provision of advanced services should be provided to competitors on an unbundled basis. For example, the Notice seeks comment on whether DSLAMs should be provided on an unbundled basis under Section 251(c)(3).⁴⁷ DSLAMs and the technology that underlies them are not proprietary to the ILEC that deploys them. DSLAMs are manufactured and sold by commercial vendors and are available to any carrier.

Under the Commission's analysis, the impair standard must be applied to determine whether a non-proprietary network element should be unbundled. Because Rhythms has been purchasing DSLAMs in the wholesale market for over a year and has found these facilities to be commercially available on competitive terms and conditions, Rhythms does

⁴⁷ Notice ¶35.

not believe that, as a general matter, an inability to gain unbundled access to DSLAMs would materially diminish a CLEC's ability to offer advanced services.

There are only narrow circumstances when DSLAMs would satisfy the "necessary" and "impair" standards under Section 251(d)(2). For instance, where a CLEC is denied collocation space when it would otherwise have installed its own DSLAM equipment, the ILEC should be required to unbundle and make available to CLECs its own DSLAMs, regardless of where the DSLAM(s) are located (*e.g.*, the central office, a remote terminal ("RT"), or controlled environmental vault ("CEV")).

In addition, ILECs must make their DSLAMs available on an unbundled basis when advanced service providers are unable to access a full clean copper loop. For instance, competitors collocating DSLAMs at or near the central office are able to provide advanced services to end users served by an all copper loop. However, because the vast majority of DSL services are technologically incapable of being provided over DLC, when an end user's loops are provided over DLC rather than individual copper loops, providers of advanced services are unable to provide that end user with a host of advanced services. Therefore, in order to serve these customers, advanced service providers must place, or have access to, DSLAMs where the copper from the end user's premises interfaces with the DLC. This point is usually located at the fiber distribution interface ("FDI") or RT and is generally located in a CEV, where DSLAMs are placed.

The Commission has recently established regulations requiring ILECs to allow competitors to collocate DSLAMs inside a CEV, or where space is not available, in a

⁴⁸ Notice ¶35.

CLEC-deployed CEV cross connected to an adjacent ILEC CEV.⁴⁹ Notwithstanding these new requirements, ILECs have shown no willingness, to comply with these provisions. All indications demonstrate that the ILECs will take months, at best, to fully implement the new collocation rules. To ensure that CLECs are able to deploy competitive advanced services to all end users, the Commission should require ILECs to immediately provide competitors unbundled access to any ILEC DSLAM in a CEV. This requirement is necessary under the terms of Section 251(c)(3) which explicitly provides that ILECs must provide access to a UNE at any "technically feasible point." To the extent that the ILEC prohibits CLECs from placing a DSLAM in or near the CEV, the ILEC's DSLAM is the only technically feasible point at which a competitor may provide DSL to an end user served by DLC.

F. In Applying the "Necessary" and "Impair" Standards Under Section 251(d)(2), the Commission May Find that Some of the Original UNEs May Not Satisfy this Standard

The Notice also seeks comment on which, if any, of the original UNEs should be retained under the necessary and impair standards. The Commission is correct that as technologies and markets evolve, the elements that the ILECs should provide on an unbundled basis may not meet the necessary and impair standard in the future. In order to maintain the integrity of the standard, it is important that the Commission recognize when unbundled access to an ILEC network element is either no longer required for a CLEC to offer its services or a comparable element becomes available on the wholesale market.

Of the Commission's original list of UNEs, there are certain elements that clearly should be provided on an unbundled basis, such as loops, interoffice transport and OSS as discussed above. That is not necessarily the case with each of the other elements. For

⁴⁹ Advanced Services Order ¶44

instance, there may be an argument that switching no longer meets the necessary and impair standard of Section 251(d)(2). While Rhythms is not directly familiar with the wholesale market for telephony switches, it appears that because a new entrant can in many circumstances buy and use electronic switching systems on comparable terms and conditions from several different commercial vendors, a competitor's ability to provide service would, in general, not be materially diminished by an inability to gain access to an ILEC's switch. This may be particular true given the Commission's recent decision in the *Advanced Services* order that ILECs must allow competitors to collocate switching equipment.⁵⁰ This may or many not be the case for all new CLEC services, but any objective analysis of the switching UNE must reflect the commercial realities of today's wholesale network equipment marketplace.

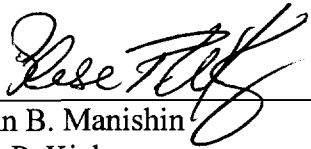
As a general matter, the Commission should therefore periodically review the level of competition in the local and advanced services market and the set of unbundled network elements. In this analysis, the Commission should seek comment on how the availability of network elements on an unbundled basis has impacted and will impact the level of competition in these markets.

CONCLUSION

The Commission should establish “necessary” and “impair” standards that recognize the requisite nature and commercial availability of ILEC network elements. In applying this standard, incumbent LECs should, at a minimum, provide CLECs with unbundled access to their loops, NIDs, transport and OSS

⁵⁰ *Advanced Services Order* ¶ 28.

Respectfully submitted,

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Dated: May 25, 1999 *Counsel Rhythms NetConnections Inc.*

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Implementation of the Local Competition)	CC Docket No. 96-98
Provisions in the Telecommunications Act)	
of 1996)	
Interconnection between Local Exchange)	CC Docket No. 95. -185
Carriers and Commercial Mobile Radio)	
Service Providers)	

**DECLARATION OF FRANK UHL ON BEHALF OF
RHYTHMS NETCONNECTIONS INC.**

Frank Uhl declares under penalty of perjury as follows:

1. My name is Frank Uhl. I am a Senior Provisioning Specialist for Rhythms NetConnections Inc. ("Rhythms") specializing in high speed transport provisioning. I make this Declaration in support of the Comments of Rhythms in the above captioned docket before the Federal Communications Commission. The matters stated in this Declaration are true of my own knowledge except as to the matters herein stated upon information and belief, and as to those matters, I believe them to be true.

2. I have been an employee of Rhythms since February of 1999. I have 28 years of telecommunications experience working for Pacific Bell and AT&T. In total I've worked in the provisioning, test and turn-up of high speed interoffice transport and messaging for approximately 15 years.

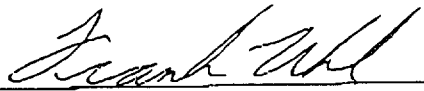
3. The purpose of this Declaration is to demonstrate that Rhythms routinely is unable to gain access to the high speed, dedicated interoffice transport it needs to provision services from providers other than the incumbent local exchange carrier ("ILEC"). Although in some markets there exist several competitive providers of high speed local transport, my experience has been that those carriers either do not have networks that extend to all the places necessary to provision the needs of Rhythms, or due to capacity issues are unable to provision service in a timely fashion. In other markets, there is simply an absence of competitive high speed transport providers.

4. It is my experience that even in those cities where alternative providers of interoffice transport exist, Rhythms is regularly required to order unbundled transport as special access from the ILEC. The special access rates are from 200-400% greater than the UNE or competitive prices for the same service. This occurs because the competitive transport providers often do not have facilities capable of servicing all of the central offices and points of presence ("POPs") in the cities where Rhythms' equipment is located. In particular, more than 90% of the time Rhythms is unable to gain access from alternative providers to facilities that can carry traffic to a POP not located either at an ILEC central office or a CAP facility. That is, when Rhythms needs to locate its POP in an independent location, the *only* transport service provider available is often the ILEC.

5. Even where providers do exist to offer interoffice services, and their network does contain facilities that cover the locations needed by Rhythms, I might still need to be able to order facilities from an ILEC. Because of the current demand for high speed transport and the cost of developing additional facilities, there is often an unreasonably long waiting period to gain

access to a competitive provider's capacity. Frequently the only way to gain access to the necessary facilities in time to meet the needs of our customers is to order facilities from the ILEC.

I hereby declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge, information and belief. Executed this 25th day of May, 1999, at Englewood, Colorado.



Frank Uhl

CERTIFICATE OF SERVICE

I, Leslie LaRose, do hereby certify that on this 26th day of May, 1999, that I have served a copy of the foregoing document to the following:


Leslie LaRose

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